CLAIMS:

1. Electrochemical energy source integrally formed in a non-conductive casing, comprising:

- a first current collector embedded in said casing and further coupled to an anode,
- a second current collector embedded in said casing and coupled to a cathode, and
- an electrolyte and a separator between said anode and said cathode,

wherein the casing comprises a portion of a housing of an electronic device, characterized in that the electrochemical energy source has a curved, planar geometry.

2. Electrochemical energy source according to claim 1, characterized in that the electrochemical energy source comprises a lamination of said anode and said cathode, characterized in that the lamination has a curved shape such that the lamination is situated in one plane.

3. Electrochemical energy source according to one of the foregoing claims, characterized in that said electrolyte is a liquid-state electrolyte.

4. Electrochemical energy source according to one of the foregoing claims, characterized in that the electrochemical energy source comprises

- at least one assembly of electrochemical cells electrically coupled together, each cell comprising said anode, said first current collector, said cathode, said second current collector, and said electrolyte and said separator situated between said anode and said cathode, and
- insulation means for insulating one cell within said assembly from another cell within said assembly.

5. Electrochemical energy source according to claim 4, characterized in that at least one assembly is formed by a conventional battery.

6. Electrochemical energy source according to claim 4 or 5, characterized in that a pack of batteries is provided, said batteries being electrically coupled together, wherein each battery comprises at least one electrochemical cell.

7. Method of manufacturing an electrochemical energy source integrally formed in a non-conductive casing, wherein the casing comprises a portion of a housing of an electronic device, comprising the steps of:

A) applying at least one electrochemical cell to said casing, which electrochemical cell comprises an anode, and a cathode,

B) realizing a suitable configuration for said electrochemical cell,

C) applying an electrolyte to said casing, and

D) adapting the orientation of said casing such that said formed electrochemical energy source is at least substantially surrounded by said casing,

characterized in that the realization of a suitable configuration for said electrochemical cell according to step B) is achieved such that said electrochemical cell exhibits a curved, planar geometry.

8. Method according to claim 7, characterized in that said electrochemical cell comprises an impermeable sheet surrounding said anode and said cathode.

9. Method according to one of the foregoing claims 7 or 8, characterized in that multiple electrochemical cells are applied to said casing during the application of said electrochemical cell to said casing according to step A).

10. Method according to one of the foregoing claims 7 to 9, characterized in that the electrochemical cell is subjected to a thermal treatment before said electrolyte is applied to said casing according to step C).